

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (original) A semiconductor device comprising:

a first conducting film formed on a semiconductor substrate;

a dielectric deposited on said first conducting film;
and

a second conducting film formed on said dielectric,
wherein said dielectric comprises a polycrystalline oxide having a plurality of crystal grains and an amorphous oxide present at the boundaries formed between said crystal grains.

2. (original) A semiconductor device comprising:

a first conducting film formed on a semiconductor substrate;

a dielectric deposited on said first conducting film;
a second conducting film formed on said dielectric,
wherein said dielectric comprises a polycrystalline oxide with a first crystallization temperature, having a

plurality of crystal grains, and an amorphous oxide with a crystallization temperature higher than the first crystallization temperature present at boundaries formed between said crystal grains.

3. (original) A semiconductor device comprising:

a first conducting film formed on a semiconductor substrate;

a dielectric deposited on said first conducting film;
and

a second conducting film formed on said dielectric,
wherein said dielectric comprises a polycrystalline oxide with a first dielectric constant and first crystallization temperature, having a plurality of crystal grains, and an amorphous oxide, having a lower dielectric constant than said first dielectric constant and a higher crystallization temperature than said first crystallization temperature, present at boundaries formed between said crystal grains.

4. (original) A semiconductor device having a capacitor comprising:

a first electrode of said capacitor comprising a first conducting film formed on a semiconductor substrate;

a dielectric deposited on said first electrode; and

a second electrode of said capacitor comprising a second conducting film formed on said dielectric,

wherein the dielectric comprises a polycrystalline oxide having a plurality of crystal grains and an amorphous oxide present at boundaries formed between said crystal grains.

5. (original) A semiconductor device according to claim 1, wherein said polycrystalline oxide comprises niobium pentoxide.

6. (original) A semiconductor device according to claim 1, wherein said polycrystalline oxide comprises niobium pentoxide, and the amorphous oxide comprises tantalum pentoxide.

7. (original) A semiconductor device according to claim 1, wherein the content of the amorphous oxide in said dielectric is from 5% to 50%.

8. (original) A semiconductor device according to claim 1, wherein the amorphous oxide comprises at least one oxide selected from among tantalum, silicon, titanium, and tungsten.

9. (original) A semiconductor device according to claim 1, wherein the film thickness of said dielectric is from 5 nm to 20 nm.

10. (original) A semiconductor device according to claim 4, wherein said first electrode comprises a material selected from ruthenium, platinum, copper, titanium nitride, tantalum nitride and tungsten nitride.

11. (original) A semiconductor device according to claim 4, wherein said first electrode comprises polycrystalline silicon and a silicon oxide film exists between said first electrode and said dielectric.

Claims 12-19 (cancelled)

20. (original) A semiconductor device according to claim 2, wherein said polycrystalline oxide comprises niobium pentoxide.

21. (original) A semiconductor device according to claim 2, wherein said polycrystalline oxide comprises niobium pentoxide, and the amorphous oxide comprises tantalum pentoxide.

22. (original) A semiconductor device according to claim 2, wherein the proportion of the amorphous oxide in said dielectric is from 5% to 50%.

23. (original) A semiconductor device according to claim 2, wherein the amorphous oxide comprises at least one oxide selected from among tantalum, silicon, titanium, and tungsten.

24. (original) A semiconductor device according to claim 2, wherein the film thickness of said dielectric is from 5 nm to 20 nm.

25. (original) A semiconductor device according to claim 3, wherein said polycrystalline oxide comprises niobium pentoxide.

26. (original) A semiconductor device according to claim 3, wherein said polycrystalline oxide comprises niobium pentoxide, and the amorphous oxide comprises tantalum pentoxide.

27. (original) A semiconductor device according to claim 3, wherein the proportion of the amorphous oxide in said dielectric is from 5% to 50%.

28. (original) A semiconductor device according to claim 3, wherein the amorphous oxide comprises at least one oxide selected from among tantalum, silicon, titanium, and tungsten.

29. (original) A semiconductor device according to claim 3, wherein the film thickness of said dielectric is from 5 nm to 20 nm.

30. (original) A semiconductor device according to claim 4, wherein said polycrystalline oxide comprises niobium pentoxide.

31. (original) A semiconductor device according to claim 4, wherein said polycrystalline oxide comprises niobium pentoxide, and the amorphous oxide comprises tantalum pentoxide.

32. (original) A semiconductor device according to claim 4, wherein the proportion of the amorphous oxide in said dielectric is from 5% to 50%.

33. (original) A semiconductor device according to claim 4, wherein the amorphous oxide comprises at least one oxide selected from among tantalum, silicon, titanium, and tungsten.

34. (original) A semiconductor device according to claim 4, wherein the film thickness of said dielectric is from 5 nm to 20 nm.

Claims 35-39 (cancelled)